



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0987; Product Identifier 2019-NM-144-AD; Amendment 39-19922; AD 2020-12-13]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. This AD was prompted by reports that during airplane wing fatigue testing, fatigue cracks were found on the lower right-hand-side wing plank at the end of the integrally machined stringers, which led to a determination that new or more restrictive airworthiness limitations are necessary. This AD requires, for certain airplanes, revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0987.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0987; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue,

Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2019-21, dated May 15, 2019 (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0987.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. The NPRM published in the Federal Register on December 27, 2019 (84 FR 71335). The NPRM was prompted by reports that during airplane wing fatigue testing, fatigue cracks were found on the lower right-hand-side wing plank at the end of the integrally machined stringers, which led to a determination that new or more restrictive airworthiness limitations are necessary. The NPRM proposed to require, for certain airplanes, revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA is issuing this AD to address undetected cracks on the lower wing plank at the stringer run-out, which could affect the structural integrity of the wing. See the MCAI for additional background information.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Clarify Affected AD

Air Wisconsin Airlines stated that paragraph (b) of the proposed AD specifies the affected ADs as "None," and that although AD 2016-17-15, Amendment 39-18628 (81 FR 59839, August 31, 2016) ("AD 2016-17-15"), may not be affected by the NPRM, it is associated with it. The FAA infers that Air Wisconsin Airlines is requesting clarification of AD 2016-17-15 as an affected AD and if it should be cited in paragraph (b) of the proposed AD.

The FAA agrees to clarify. The FAA acknowledges this AD affects AD 2016-17-15. ADs that are superseded or are terminated (or partially terminated) by an AD are listed in paragraph (b) of that AD. The FAA has added paragraph (j) to the AD to specify that accomplishing the revision required by paragraph (g) of this AD terminates the requirement to incorporate airworthiness limitations (AWL) task 57-21-112 in Part 6 – Eddy Current, of Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 40, dated November 10, 2018 ("AWL task 57-21-112"), as specified in paragraph (g)(12) of AD 2016-17-15. The FAA has also added AD 2016-17-15 to paragraph (b) of this AD.

Request to Revise a Certain Service Information Citation

Bombardier requested that the FAA revise the service information citation in paragraph (g) of the proposed AD for the initial compliance time for AWL task

57-21-112. Bombardier stated that the maintenance review manual specifies the inspection intervals and not the nondestructive testing manual specified in paragraph (g) of the proposed AD.

The FAA agrees with the commenter for the reason provided by the commenter. The FAA has revised paragraph (g) of this AD to state that the initial compliance time for doing the task is at the at the next scheduled inspection as specified in AWL task 57-21-112, or within 30 days after the effective date of this AD, whichever occurs later.

Request to Provide Clarification to the NPRM

Air Wisconsin Airlines stated that it infers that the intent of paragraph (g) of the proposed AD is to incorporate the nondestructive testing (NDT) inspection introduced in Bombardier Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 40, dated November 10, 2018 (“NDT Manual, Revision 40”), as AD 2016-17-15 already requires incorporation of AWL task 57-21-112 into an operator's maintenance program. Air Wisconsin Airlines stated that if it is required to use only NDT Manual, Revision 40, then it would suggest that an alternative method of compliance (AMOC) would be required for every revision issued after that to the NDT manual, as required by AD 2009-06-12, Amendment 39-15848 (74 FR 10457, March 11, 2009), for the fault isolation manual (FIM). Air Wisconsin Airlines asked if that is the intent of the NPRM, or is the intent of the NPRM as specified in the MCAI to prohibit the use of earlier revisions of the NDT manual. The FAA infers that Air Wisconsin Airlines is requesting the FAA clarify the intent of paragraph (g) of the NPRM.

The FAA agrees to clarify the intent of paragraph (g) of this AD. The intent is to prohibit the use of revisions prior to NDT Manual, Revision 40. The FAA revised the

language in paragraph (g) of this AD to specify operators to “revise the existing maintenance or inspection program, as applicable, to incorporate the information in AWL task 57-21-112, as specified in Part 6 - Eddy Current, of Bombardier Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 40, dated November 10, 2018.” The revised language in paragraph (g) of this AD is designed to allow incorporating the specific information, regardless of the revision level of the NDT manual, in use, so long as the language is identical to the information in NDT Manual, Revision 40. Bombardier Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 41, dated October 10, 2019, includes the same information that is specified in NDT Manual, Revision 40. If a revision of the NDT manual does not contain the same information for AWL task 57-21-112, as specified in NDT Manual, Revision 40, operators may request an AMOC using the procedures specified in paragraph (k)(1) of this AD.

Request to Incorporate A Certain Temporary Revision

Bombardier requested that paragraph (h) of the proposed AD state that the incorporation of Bombardier CL-600-2B19 Temporary Revision 2B-2273, dated October 31, 2019, to Appendix B - Airworthiness Limitations, Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual (“Temporary Revision 2B-2273”), into the next full manual revision also meets the requirements of paragraph (h) of the proposed AD.

The FAA agrees with the commenter that the next full manual revision that incorporates the information in Temporary Revision 2B-2273 will meet the requirements of paragraph (h) of this AD. The FAA has revised the language in paragraph (h) of this

AD to specify that operators “revise the existing maintenance or inspection program, as applicable, to incorporate the information in AWL task 57-21-169, as specified in Bombardier CL-600-2B19 Temporary Revision 2B-2273, dated October 31, 2019, to Appendix B - Airworthiness Limitations, of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual.”

This revised language requires including the information that is provided in the referenced temporary revision. The revised language in paragraph (h) of this AD is designed to allow incorporating the specific information, regardless of the revision level of the NDT manual in use, so long as the information is identical to that in Temporary Revision 2B-2273.

Request to Clarify the Inspection Method

Air Wisconsin stated that paragraph (h) of the proposed AD specifies that the requirement is to incorporate AWL task 57-21-169, as specified in Temporary Revision 2B-2273 for which there is no existing inspection in the NDT manual. Air Wisconsin stated that Temporary Revision 2B-2273 does not indicate how to perform this inspection and that it only states to perform it, dependent upon maximum take-off weight (MTOW) if over the threshold from the last inspection per AWL task 57-21-112. Air Wisconsin commented that there needs to be a method of performing the inspection in the NDT manual, because AWL task 57-21-112 may have been incorporated into a maintenance program many years ago and inspections using the NDT Manual, Revision 40, may have been performed immediately after its publication. Air Wisconsin also commented that depending on utilization, there may be less than 100 cycles remaining before the inspection is required to be performed at the effective date of the AD, and therefore, there

needs to be a better phase-in schedule than that shown in Temporary Revision 2B-2273, or an inspection method is required to be published sooner than later. The FAA infers that Air Wisconsin is requesting clarification for the inspection method.

The FAA agrees to clarify the inspection method. Temporary Revision 2B-2273 does provide an inspection method because it identifies the inspection type as a special detailed inspection and includes a reference to AWL task 57-21-169. The inspection method is available in the NDT manual.

Regarding the phase-in schedule, the FAA notes that paragraph (h) of this AD provides a 30-day grace period for the initial compliance time. Operators may also request an AMOC to extend the compliance time using the procedures specified in paragraph (k)(1) of this AD. The FAA has not changed this AD in this regard.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information under 1 CFR Part 51

Bombardier has issued Airworthiness Limitations task 57-21-112 to Part 6 - Eddy Current, of Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 40, dated November 10, 2018. This service information describes airworthiness limitations for doing a special detailed inspection of the lower wing skin splice joints at buttock line (BL) 45.00, wing station (WS) 65.75, and WS148.00.

Bombardier has also issued CL-600-2B19 Temporary Revision 2B-2273, dated October 31, 2019, to Appendix B - Airworthiness Limitations, of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual. This service information describes airworthiness limitations for doing an inspection for cracking on the lower wing plank at the stringer run-out.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 464 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 work-hours per operator, although the FAA recognizes that this number may vary from operator to operator. In the past, the FAA has estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a

per-operator estimate is more accurate than a per-airplane estimate. Therefore, the FAA estimates the total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020-12-13 Bombardier, Inc.: Amendment 39-19922; Docket No. FAA-2019-0987;

Product Identifier 2019-NM-144-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2016-17-15, Amendment 39-18628 (81 FR 59839, August 31, 2016) (“AD 2016-17-15”).

(c) Applicability

This AD applies to Bombardier, Inc., Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial number 7003 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Reason

This AD was prompted by reports that during airplane wing fatigue testing, fatigue cracks were found on the lower right-hand-side wing plank at the end of the integrally machined stringers, which led to a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address undetected cracks on the lower wing plank at the stringer run-out, which could affect the structural integrity of the wing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Maintenance or Inspection Program Revision for Task 57-21-112

For airplanes on which Bombardier Service Bulletin 601R-57-044 has not been done: Within 30 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information in airworthiness limitations (AWL) task 57-21-112, as specified in Part 6 - Eddy Current, of Bombardier Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 40,

dated November 10, 2018. The initial compliance time for doing the task is at the next scheduled inspection as specified in AWL task 57-21-112, or within 30 days after the effective date of this AD, whichever occurs later.

(h) Maintenance or Inspection Program Revision for Task 57-21-169

For airplanes on which Bombardier Service Bulletin 601R-57-044 has been done: Within 30 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information in AWL task 57-21-169, as specified in Bombardier CL-600-2B19 Temporary Revision 2B-2273, dated October 31, 2019, to Appendix B - Airworthiness Limitations, of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual. The initial compliance time for doing the task is at the time specified in Bombardier CL-600-2B19 Temporary Revision 2B-2273, dated October 31, 2019, to Appendix B - Airworthiness Limitations, of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual, or within 30 days after the effective date of this AD, whichever occurs later.

(i) No Alternative Actions or Intervals

After the existing maintenance or inspection program has been revised as required by paragraphs (g) and (h) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) of this AD.

(j) Terminating Action for a Certain Requirement of AD 2016-17-15.

Accomplishing the revision required by paragraph (g) of this AD terminates the requirement to incorporate AWL 57-21-112 as specified in paragraph (g)(12) of AD 2016-17-15.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2019-21, dated May 15, 2019, for related information. This MCAI may be found

in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0987.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airworthiness Limitations task 57-21-112 to Part 6 - Eddy Current, of Bombardier Canadair Regional Jet CRJ200 Nondestructive Testing Manual, CSP A-010, Revision 40, dated November 10, 2018.

(ii) Bombardier CL-600-2B19 Temporary Revision 2B-2273, dated October 31, 2019, to Appendix B - Airworthiness Limitations, of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 19, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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